

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject which is claimed and for which a patent is sought on the INVENTION ENTITLED

MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM

the specification of which (CHECK applicable BOX(ES))

-> [] is attached hereto.

-> [XX] was filed on June 5, 1995 as U.S. Application No. 0 8 / 462,430

OX(ES) -> [] was filed as PCT International Application No. PCT/ / on

-> -> and (if applicable to U.S. or PCT application) was amended on

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate filed by me or my assignee disclosing the subject matter claimed in this application and having a filing date (1) before that of the application on which priority is claimed, or (2) if no priority claimed, before the filing date of this application:

| PRIOR FOREIGN APPLICATION(S) | | Date first Laid- | Date Patented | Priority Claimed |
|------------------------------|---------|-------------------|---------------|------------------|
| Number | Country | open or Published | or Granted | Yes No |

I hereby claim the benefit under 35 U.S.C. 120/365 of all United States applications listed below and PCT international applications listed above or below and, if this is a continuation-in-part (CIP) application, insofar as the subject matter disclosed and claimed in this application is in addition to that disclosed in such prior applications, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56 which became available between the filing date of each such prior application and the national or PCT international filing date of this application:

| PRIOR U.S. PROVISIONAL, NONPROVISIONAL AND/OR PCT APPLICATION(S) | Status |
|--|------------------------------|
| Application No. (series code/serial no.) | pending, abandoned, patented |

| | | |
|------------|-------------|---------|
| 08/181,859 | 13 JAN 1994 | PENDING |
| 08/272,203 | 8 JULY 1994 | PENDING |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And I hereby appoint Cushman Darby & Cushman, L.L.P. 1100 New York Avenue, N.W., Ninth Floor, East Tower Washington, D.C. 20005-3918, telephone number 861-3000 (to whom all communications are to be directed), and the below-named persons (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent, and I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Cushman, Darby & Cushman in writing to the contrary.

| | | | | | | | |
|----------------------|-------|---------------------|-------|--------------------|-------|----------------------|-------|
| Paul N. Kokulis | 16773 | Edward M. Prince | 22429 | Dale S. Lazar | 28872 | Michelle N. Lester | 32331 |
| Raymond F. Lippitt | 17519 | Donald B. Deaver | 23048 | Glenn J. Perry | 28458 | Jeffrey A. Simenauer | 31933 |
| G. Lloyd Knight | 17698 | David W. Brinkman | 20817 | Kendrew H. Colton | 30368 | Robert A. Molan | 29834 |
| Carl G. Love | 18781 | George M. Sirilla | 18221 | Chris Comuntzis | 31097 | G. Paul Edgell | 24238 |
| Edgar H. Martin | 20534 | Donald J. Bird | 25323 | Wallace G. Walter | 27843 | Lynn E. Eccleston | 35861 |
| William K. West, Jr. | 22057 | W. Warren Taltavull | 25647 | Lawrence Harbin | 27644 | Frederick S. Frei | 27105 |
| Kevin E. Joyce | 20508 | Peter W. Gowdey | 25872 | Paul E. White, Jr. | 32011 | David A. Jakopin | 32995 |
| | | | | | | Mark G. Paulson | 30793 |

1. INVENTOR'S SIGNATURE: [Signature] Date 9-13-95
 Inventor's Name (typed) Frank W. SUDIA U.S.A.
 First Middle Initial Family Name Country of Citizenship
 Residence (City) New York (State/Foreign Country) New York
 Post Office Address (Include Zip Code) 110 East 84th Street, Apt. 4B, New York, New York 10028

2. INVENTOR'S SIGNATURE: [Signature] Date 9/13/95
 Inventor's Name (typed) Peter C. FREUND U.S.A.
 First Middle Initial Family Name Country of Citizenship
 Residence (City) New York (State/Foreign Country) New York
 Post Office Address (Include Zip Code) 139 East 79th Street, 8th Floor, New York, New York 10021

3. INVENTOR'S SIGNATURE: [Signature] Date 9/13/95
 Inventor's Name (typed) Stuart T.F. HUANG U.S.A.
 First Middle Initial Family Name Country of Citizenship
 Residence (City) Washington (State/Foreign Country) District of Columbia
 Post Office Address (Include Zip Code) 2939 Van Ness Street, N.W., #907, Washington, D.C. 20008

(FOR ADDITIONAL INVENTORS, check box [] and attach sheet (CDC-116.2) for same information for each re signature, name, date, citizenship, residence and address.)

RULES 6(a) & (b) = 37 C.F.R. 1.56(a) & (b)
PATENT AND TRADEMARK CASES - RULES OF PRACTICE
DUTY OF DISCLOSURE

- (a) ... Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the [Patent and Trademark] Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability... (b) information is material to patentability when it is not cumulative and (1) It also establishes by itself, or in combination with other information, a prima facie case of unpatentability of a claim or (2) refers, or is inconsistent with, a position the applicant takes in: (i) Opposing an argument of unpatentability relied on by the Office, or (ii) Asserting an argument of patentability.

PATENT LAWS 35 U.S.C.

§102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless--

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent or
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
- (c) he has abandoned the invention, or
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months* before the filing of the application in the United States, or
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent, or
- (f) he did not himself invent the subject matter sought to be patented, or
- (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

§103. Condition for patentability; non-obvious subject matter

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. Subject matter developed by another person, which qualified as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

* Six months for Design Applications (35 U.S.C. 172).

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No: 08/462,430

Art Unit: 2202

First Named Inventor: Sudia, F..

Examiner:

Filing Date: June 5, 1995

Atty. Dkt.: 10624.0004
(C#.M#)

Title: Multi-Step Digital Signature Method And System

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

**POWER OF ATTORNEY
AND REVOCATION OF PRIOR POWERS**

Sir:

The undersigned assignee of the U.S. patent application identified above submits this Power of Attorney and Revocation of Prior Powers, and hereby revokes all prior powers of attorney, and appoints the attorneys identified below in their respectively-designated capacities to transact all business in the U.S. Patent and Trademark Office in connection with this application.

Principal Attorney of Record: Stuart T. F. Huang, Reg. #34184.

Associate Attorney(s): Frederick S. Frei, Esq., Reg. #27105.

Henceforth please address all communications regarding this patent application to:

Stuart T. F. Huang, Esq.
Steptoe & Johnson LLP
1330 Connecticut Avenue, N.W.,
Washington, DC 20036-1795
Phone: (202) 429-3000
Fax: (202) 429-3902

Documentary evidence of a chain of title from the original owner of the application identified above to the assignee is submitted herewith. The undersigned assignee has reviewed the documentary evidence and hereby certifies that, to the best of assignee's knowledge and belief, title is in the assignee.

Signature: _____

By: Robert C. Freund
Title: Managing Director
Bankers Trust Company

Date: 11/2/96

11-21-1995

ONLY PATENTS & PAT. APPL.

U.S. & PATENTS ONLY



To the Honorable



U.S., D.C. 20231

Please record the attached

100092665

particulars are:

1. Name of conveying party(ies) (assignor(s)):

Frank W. SUDIA; Peter C. FREUND; Stuart T. F. HUANG

Additional name(s) of conveying party(ies) attached? ☐ yes ☒ no

2. Name and Address of Party(ies) receiving an interest (assignee(s)):

BANKERS TRUST COMPANY

Address: 280 Park Avenue

New York, New York 10017

City:

State:

Zip:

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ no

3. Nature of Conveyance (Document):

(Submit herewith only one document for recordation -- multiple copies of same Assignment signed by different inventors is one document)☒ Assignment of ☒ whole ☐ part interest

Execution Date: 07/14/95/ 07/17/95; 07/14/95 1995

☐ Merger☐ Change of Name☐ Verified Translation☐ Security Agreement☐ Other4. Execution date(s) on the Declaration if filed herewith: (NOTE: if dates $\uparrow \downarrow$ differ see atty!)

September 13, 1995; September 13, 1995; September 18, 1995

4.5 Application number(s) or patent number(s). Others on additional sheet(s) attached? ☐ yes ☒ No

A.

Patent Appln. No(s).

(series code/serial no.)

M#

First Inventor

if not in Item 1

08/462,430

215448

B.

Patent No(s).

M#

First Inventor

if not in Item 1

68904 U.S. PTO



11/17/95

5. Name and address of party to whom correspondence concerning document should be mailed:

Cushman Darby & Cushman, L.L.P.

1100 New York Avenue, N.W.

Ninth Floor, East Tower

Washington, D.C. 20005-3918

(see telephone number below)

6. Number involved:

Applns. 1 + Pats: 0 = Total 1

7. Amount of fee enclosed: (code 581)

Above Total x \$40 = \$40.00

8. If above fee missing or inadequate charge insufficiency to Deposit Account number 03-3975 under Order No. 7540 / 215448

C# / M#

(duplicate sheet not required.)

5.5.

Atty Dkt:

215448 / 7540

M#

Client Ref.

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Signature

10. Total number of pages

including this cover sheet, attached sheet and document 08462430
(Do not file dup. cover sheet)

3

Attorney: Stuart T. F. Huang

Reg. No. 34,184

Date: September 19, 1995

Atty/Sec: STFH:wyk

Tel: (202) 861-3708

Fax: (202) 822-0944

Please return signed/recorded
CUSHMAN DARBY & CUSHMAN
Ninth Floor, East Tower
1100 New York Avenue, N.W.
Washington, D.C. 20005-3918.

Dkt. 215448 / 7540
M# / Client Ref.

ASSIGNMENT
of U.S. Origin Patent Application
(to Corporation)
(or Limited Partnership)

WHEREAS, the undersigned, to wit:

- 1) Frank W. SUDIA
- 2) Peter C. FREUND
- 3) Stuart T.F. HUANG
- 4) _____

(hereinafter collectively ASSIGNOR), has/have made an invention known as Dkt. 7540/215448

and entitled: MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM

for which an application for Letters Patent of the United States

[] was executed even date herewith and is about to be filed in the United States Patent and Trademark Office;

[X] was filed on June 5, 1995, Appln. No. 0 8 /462,430;

AND WHEREAS BANKERS TRUST COMPANY

(hereinafter ASSIGNEE), [XX] a corporation [] Limited Partnership duly organized and existing under the laws of the State of New York and having its principal office and place of business at 280 Park Avenue, New York, New York 10017, desires to acquire an interest therein;

NOW, THEREFORE, in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the said ASSIGNOR, does hereby sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right, title and interest to the said invention in the United States and all foreign countries, as described in the aforesaid application, and to the said application and to all continuations, divisions, reissues and substitutes of said application, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and ASSIGNOR hereby authorizes and requests the Commissioner of Patents to issue said Letters Patent to ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives.

AND ASSIGNOR hereby agrees to execute any papers requested by ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.


ASSIGNOR furthermore agrees upon request of said ASSIGNEE, and without further remuneration, to execute any and all papers desired by said ASSIGNEE for the filing and granting of foreign applications and the perfecting of title thereto in said ASSIGNEE.

Executed on the date(s) below indicated.

Signature

Date Signed


Witness

1) 
Name: Frank W. Sudia

7-14-95

2) 
Name: Peter C. Freund

7/12/95

3) 
Name: Stuart T. F. Huang

7/14/95

INTELLECTUAL PROPERTY ASSIGNMENT
FROM BANKERS TRUST COMPANY TO CERTCO, LLC.

Whereas, BANKERS TRUST COMPANY, a corporation duly organized and existing under the laws of the State of New York (hereinafter "BTC"), has a distinct and separate portion of its business directed to developing and marketing products and services for electronic commerce (hereinafter "the business"); and

Whereas CERTCO, LLC, a Delaware limited liability company (hereinafter "CERTCO"), desires to acquire the business as a going concern, including all patents, patent applications, inventions, trademarks, trademark applications and goodwill associated with the business; and

Whereas BTC is:

(i) assignee of full and exclusive right, title and interest, in and to all the inventions of the patents and patent applications identified in the Appendix attached hereto in the United States and all foreign countries, and

(ii) owner of full and exclusive right, title and interest, in and to the trademark applications listed in the Appendix attached hereto in the United States as a result of Applications and/or Assignments filed in the U.S. Patent and Trademark Office; and

Whereas BTC and CERTCO desire to transfer one hundred percent (100%) of the business from BTC to CERTCO by:

(i) transferring a one percent (1%) undivided interest in the business from BTC to BTC FIRST HOLDINGS, LLC., a Delaware limited liability company (hereinafter "FIRST HOLDINGS"), and then immediately transferring that one percent (1%) interest in the business from FIRST HOLDINGS to CERTCO, and

(ii) transferring a ninety-nine percent (99%) interest in the business from BTC to BTC SECOND HOLDINGS, LLC., a Delaware limited liability company (hereinafter "SECOND HOLDINGS"), and then immediately transferring that ninety-nine percent (99%) interest in the business from SECOND HOLDINGS to CERTCO;

NOW THEREFORE, BTC, FIRST HOLDINGS, SECOND HOLDINGS, AND CERTCO (HEREINAFTER "THE PARTIES") AGREE AS FOLLOWS:

I. BANKERS TRUST ASSIGNS TO FIRST HOLDINGS

A. In consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, BTC does hereby sell, assign and transfer unto FIRST HOLDINGS, its successors, assigns and legal representatives:

(i) an undivided one percent (1%) right, title and interest to the said inventions in the United States and all foreign countries, including those described in the patent applications as listed in the Appendix, and to the said patent applications, and to all continuations, divisions, reissues and substitutes of said patent applications, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, as well as any resulting patents, and BTC hereby authorizes and requests the Commissioner of Patents to issue said resulting patents to FIRST HOLDINGS, for its interest as BTCO FIRST HOLDINGS, LLC, its successors, assigns and legal representatives;

(ii) an undivided one percent (1%) right, title and interest in, to and under each said Letters Patent listed in the Appendix, including, though not in way of limitation, all rights of recovery for past infringement thereof; and

(iii) an undivided one percent (1%) right, title and interest to the trademarks listed in the Appendix, together with the business and goodwill associated therewith, and the associated applications in the United States and all foreign countries.

B. AND BTC hereby agrees to execute any papers requested by FIRST HOLDINGS, its successors, assigns and legal representatives, deemed essential to FIRST HOLDINGS's full protection and title in and to the inventions and the trademarks hereby transferred.

C. BTC furthermore agrees upon request of FIRST HOLDINGS, and without further remuneration, to execute any and all papers desired by FIRST HOLDINGS for the filing and granting of foreign patent and trademark applications and the perfecting of title thereto in FIRST HOLDINGS.

D. FIRST HOLDINGS agrees that the attorneys of record in said applications shall hereafter act on behalf of FIRST HOLDINGS.

II. BANKERS TRUST ASSIGNS TO SECOND HOLDINGS

A. In consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, BTC does hereby sell, assign and transfer unto SECOND HOLDINGS, its successors, assigns and legal representatives:

(i) an undivided ninety nine percent (99%) right, title and interest to the said inventions in the United States and all foreign countries, including those described in the aforesaid patent applications, and to the said patent applications and to all continuations, divisions, reissues and substitutes of said patent applications, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, as well as any resulting patents, and BTC hereby authorizes and requests the Commissioner of Patents to issue said resulting patents to SECOND HOLDINGS, for its interest as BTCO SECOND HOLDINGS, LLC, its successors, assigns and legal representatives;

(ii) an undivided ninety nine percent (99%) right, title and interest in, to and under each said Letters Patent listed in the Appendix, including, though not in way of limitation, all rights of recovery for past infringement thereof; and

(iii) an undivided ninety nine percent (99%) right, title and interest to the trademarks listed in the Appendix, together with the business and goodwill associated therewith, and the associated applications in the United States and all foreign countries.

B. AND BTC hereby agrees to execute any papers requested by SECOND HOLDINGS, its successors, assigns and legal representatives, deemed essential to SECOND HOLDINGS's full protection and title in and to the inventions and trademarks hereby transferred.

C. BTC furthermore agrees upon request of SECOND HOLDINGS, and without further remuneration, to execute any and all papers desired by SECOND HOLDINGS for the filing and granting of foreign patent and trademark applications and the perfecting of title thereto in SECOND HOLDINGS.

D. SECOND HOLDINGS agrees that the attorneys of record in said applications shall hereafter act on behalf of SECOND HOLDINGS.

III. FIRST HOLDINGS ASSIGNS TO CERTCO

A. Immediately subsequent to the transfers set forth in parts I and II above, and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, FIRST HOLDINGS does hereby sell, assign and transfer unto CERTCO, its successors, assigns and legal representatives,

(i) its entire right, title and interest to said inventions in the United States and all foreign countries, including those described in the aforesaid patent applications, and to said applications and to all continuations, divisions, reissues and substitutes of said applications, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, as well as any resulting patents, and FIRST HOLDINGS hereby authorizes and requests the Commissioner of Patents to issue said resulting patents to CERTCO, for its interest as CERTCO, its successors, assigns and legal representatives;

(ii) its entire right, title and interest in, to and under each said Letters Patent listed in the Appendix, including, though not in way of limitation, all rights of recovery for past infringement thereof; and

(iii) its entire right, title and interest to the trademarks listed in the Appendix, together with the business and goodwill associated therewith, and the associated applications in the United States and all foreign countries.

B. AND FIRST HOLDINGS hereby agrees to execute any papers requested by CERTCO, its successors, assigns and legal representatives, deemed essential to CERTCO's full protection and title in and to the inventions and trademarks hereby transferred.

C. FIRST HOLDINGS furthermore agrees upon request of CERTCO, and without further remuneration, to execute any and all papers desired by CERTCO for the filing and granting of foreign applications and the perfecting of title thereto in CERTCO.

D. CERTCO agrees that the attorneys of record in said patent and trademark applications shall hereafter act on behalf of CERTCO.

IV. SECOND HOLDINGS ASSIGNS TO CERTCO

A. Immediately subsequent to the transfers set forth in parts I and II above, and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, SECOND HOLDINGS does hereby sell, assign and transfer unto CERTCO, its successors, assigns and legal representatives,

(i) its entire right, title and interest to said inventions in the United States and all foreign countries, including those described in the aforesaid patent applications, and to said applications and to all continuations, divisions, reissues and substitutes of said applications, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, as well as any resulting patents, and SECOND HOLDINGS hereby authorizes and requests the Commissioner of Patents to issue said resulting patents to CERTCO, for its interest as CERTCO, its successors, assigns and legal representatives;

(ii) its entire right, title and interest in, to and under each said Letters Patent listed in the Appendix, including, though not in way of limitation, all rights of recovery for past infringement thereof; and

(iii) its entire right, title and interest to the trademarks listed in the Appendix, together with the business and goodwill associated therewith, and the associated applications in the United States and all foreign countries.

B. AND SECOND HOLDINGS hereby agrees to execute any papers requested by CERTCO, its successors, assigns and legal representatives, deemed essential to CERTCO's full protection and title in and to the inventions and trademarks hereby transferred.

C. SECOND HOLDINGS furthermore agrees upon request of CERTCO, and without further remuneration, to execute any and all papers desired by CERTCO for the filing and granting of foreign applications and the perfecting of title thereto in CERTCO.

D. CERTCO agrees that the attorneys of record in said patent and trademark applications shall hereafter act on behalf of CERTCO.

V. ADDITIONAL TERMS

A. AND BTC hereby agrees to execute any papers requested by CERTCO, its successors, assigns and legal representatives, deemed essential to CERTCO's full protection and title in and to the inventions and trademarks hereby transferred.

B. BTC furthermore agrees upon request of CERTCO, and without further remuneration, to execute any and all papers desired by CERTCO for the filing and granting of foreign applications and the perfecting of title thereto in CERTCO.

Dated as of this 30th day of October, 1996.

BANKERS TRUST COMPANY

By: [Signature]
Name: J. Hearn
Title: SM

[Signature]
Witness(es)

PETER J. DECOSTER
Notary Public, State of New York
No. 4945854
Qualified in Nassau County
Commission Expires January 27, 1997

BTCO FIRST HOLDINGS, LLC.
By: BANKERS TRUST COMPANY,
as an Authorized Member

By: [Signature]
Name: J. Hearn
Title: SM

[Signature]
Witness(es)

PETER J. DECOSTER
Notary Public, State of New York
No. 4945854
Qualified in Nassau County
Commission Expires January 27, 1997

BTCO SECOND HOLDINGS, LLC.
By: BANKERS TRUST COMPANY,
as an Authorized Member

By: [Signature]
Name: J. Hearn
Title: SM

[Signature]
Witness(es)

PETER J. DECOSTER
Notary Public, State of New York
No. 4945854
Qualified in Nassau County
Commission Expires January 27, 1997

Intellectual Property Assignment by Bankers Trust Company to CertCo LLC

CERTCO, LLC.

By: BTCO FIRST HOLDINGS, LLC.,
as an Authorized Member

By: [Signature]

Name: J. Hennessy

Title: Emp

And by: BTCO SECOND HOLDINGS, LLC.,
as an Authorized Member

By: [Signature]

Name: J. Hennessy

Title: Emp

[Signature]
Witness(es)

PETER J. DECOSTER
Notary Public, State of New York
No. 4945854
Qualified in Nassau County
Commission Expires January 27, 1992

[Signature]
Witness(es)

PETER J. DECOSTER
Notary Public, State of New York
No. 4945854
Qualified in Nassau County
Commission Expires January 27, 1992

Appendix

Issued Patents:

| <u>Patent Number</u> | <u>Issue Date</u> | <u>Inventor</u> | <u>Title</u> |
|---------------------------------|-------------------|-----------------|---------------------------------------|
| 5,276,737 | 04/20/1992 | Micali | FAIR CRYPTOSYSTEMS AND METHODS OF USE |
| 5,315,658 | 04/19/1993 | Micali | FAIR CRYPTOSYSTEMS AND METHODS OF USE |
| B1 5,276,737 (Reexamination) | 09/12/1995 | Micali | FAIR CRYPTOSYSTEMS AND METHODS OF USE |
| B1 5,315,658 (Reexamination) | 09/12/1995 | Micali | FAIR CRYPTOSYSTEMS AND METHODS OF USE |

Pending Patent Applications:

| <u>Appln. No.</u> | <u>Filing Date</u> | <u>Title</u> |
|--------------------------------|--------------------|---|
| 08/181,859 | 01/13/1994 | FAIR CRYPTOSYSTEMS AND METHODS OF USE |
| 08/272,203 | 07/08/1994 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/277,438 | 07/19/1994 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/462,430 | 06/05/1995 | MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM |
| 08/526,979 (Reissue Appl'n) | 09/12/1995 | FAIR CRYPTOSYSTEMS AND METHODS OF USE |
| 08/526,977 (Reissue Appl'n) | 09/12/1995 | FAIR CRYPTOSYSTEMS AND METHODS OF USE |
| 08/682,071 | 07/16/1996 | METHOD FOR SECURELY USING DIGITAL SIGNATURES IN A COMMERCIAL CRYPTOGRAPHIC SYSTEM |

Intellectual Property Assignment by Bankers Trust Company to CertCo LLC

| | | |
|------------|------------|--|
| 08/699,579 | 08/19/1996 | ADAPTIVE MULTI-STEP DIGITAL SIGNATURE SYSTEM AND METHOD OF OPERATION THEREOF |
| 08/726,434 | 10/04/1996 | PAYMENT AND TRANSACTIONS IN ELECTRONIC COMMERCE SYSTEM |

Pending Foreign Patent Applications:

Title: CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE

| Country | Application Number | Filing Date |
|----------------|--------------------|-------------|
| ARIPO | AP/P/96/00811 | 05/17/1996 |
| Australia | 60842/96 | 08/01/1996 |
| Brazil | PI 9506414-1 | 07/13/1996 |
| China | 95191205.4 | 07/13/1996 |
| Canada | 2176032 | 05/07/1996 |
| Czech Republic | PV 1978-96 | 07/04/1996 |
| EPO | 95908511.9 | 05/15/1996 |
| Hungary | 20938/96 | 07/09/1996 |
| Japan | 519155/95 | 07/12/1996 |
| Korea (South) | 96-703134 | 06/13/1996 |
| Mexico | 967773 | 07/12/1996 |
| New Zealand | 279622 | 05/06/1996 |
| OAPI | PV.60829 | 05/31/1996 |
| Poland | P-315574 | 07/11/1996 |
| Russia | NP | 07/13/1996 |
| Ukraine | 96072822 | 07/13/1996 |
| Vietnam | SC0030/96 | 07/13/1996 |
| PCT | PCT/US95/00531 | 01/13/1995 |

NP = Notification Pending

Title: MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM

| Country | Application Number | Filing Date |
|--|--------------------|-------------|
| Argentina | NP | 06/04/1996 |
| Bangladesh | 61/96 | 05/30/1996 |
| Chile | NP | 06/04/1996 |
| Colombia | NP | 06/04/1996 |
| Egypt | 495/96 | 06/05/1996 |
| Indonesia | P-96/305 | 05/28/1996 |
| Israel | 18,363 | 05/22/1996 |
| Malaysia | PI 9602171 | 06/04/1996 |
| Pakistan | 418/96 | 07/02/1996 |
| Peru | NP | 06/04/1996 |
| South Africa | 96/3635 | 05/08/1996 |
| Taiwan | 85105565 | 05/10/1996 |
| United Kingdom | 9610291.8 | 05/16/1996 |
| Venezuela | NP | 06/14/1996 |
| India | 963/MAS/96 | 06/04/1996 |
| Philippine | 43246 | 05/31/1996 |
| PCT | PCT/US96/05317 | 04/19/1996 |
| (designating All except United States) | | |

NP = Notification Pending

Title: METHOD FOR SECURELY USING DIGITAL SIGNATURES IN A
COMMERCIAL CRYPTOGRAPHIC SYSTEM

| Country | Application Number | Filing Date |
|---|--------------------|-------------|
| Argentina | 337524 | 07/18/1996 |
| Bangladesh | 83/96 | 07/06/1996 |
| Chile | 1286-96 | 07/19/1996 |
| Egypt | 679/96 | 07/07/1996 |
| India | 1718/CAL/95 | 12/26/1995 |
| Indonesia | NP | |
| Israel | 118828 | 07/10/1996 |
| Malaysia | PI9602587 | 06/26/1996 |
| Peru | 547 | 07/17/1996 |
| Philippine | 53680 | 07/10/1996 |
| South Africa | 96/5497 | 07/19/1995 |
| Taiwan | NP | |
| Turkey | NP | |
| Venezuela | 1280/96 | 07/17/1996 |
| PCT | PCT/US95/09076 | 07/19/1995 |
| (designating all countries including U.S.A.) | | |

NP = Notification Pending

Intellectual Property Assignment by Bankers Trust Company to CertCo LLC

Pending United States Trademark Applications:

| <u>Appln. No.</u> | <u>Filing Date</u> | <u>Mark</u> |
|-------------------|--------------------|-------------------------|
| 75/081,204 | 03/29/1996 | ACQUIRE |
| 75/013,246 | 11/01/1995 | CERTCO |
| 75/163,731 | 09/10/1996 | CRYPTWRAP |
| 74/524,975 | 05/16/1994 | CYBER NOTARY (Allowed) |
| 74/700,529 | 07/13/1995 | ETHEREAL BANK |
| 74/700,530 | 07/13/1995 | HIGH TRUST ARCHITECTURE |
| 74/700,526 | 07/13/1995 | HTA |
| 74/083,056 | 04/03/1996 | MULTI-STEP SIGNING |
| 74/700,533 | 07/13/1995 | SANSKRIT |
| 75/079,007 | 01/26/1996 | SECUREKEES |
| 75/134,941 | 07/16/1996 | THE BUCK STARTS HERE |

Pending Foreign Trademark Applications:

| <u>Country</u> | <u>Appln. No.</u> | <u>Filing Date</u> | <u>Mark</u> |
|-------------------|-------------------|--------------------|-------------|
| Canada | NP | | ACQUIRE |
| CTW (European) | NP | | ACQUIRE |

NP = Notification Pending



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Patent and Trademark Office**

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OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

AUGUST 31, 2000

PTAS

STEPTOE & JOHNSON LLP
STUART T.F. HUANG
1330 CONNECTICUT AVENUE, NW
WASHINGTON, D.C. 20036-1795



101404274A

**UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

jc997 U.S. PTO
09/816684
03/26/01

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RECORDATION DATE: 06/14/2000

REEL/FRAME: 010901/0682
NUMBER OF PAGES: 11

BRIEF: CONFIRMATORY ASSIGNMENT

ASSIGNOR:

CERTCO LLC, A LIMITED LIABILITY
COMPANY OF DELAWARE

DOC DATE: 04/05/2000

ASSIGNEE:

CERTCO, INC., A CORPORATION OF
DELAWARE
55 BROAD STREET, 22ND FLOOR
NEW YORK, NEW YORK 10004

SERIAL NUMBER: 08272203
PATENT NUMBER:

FILING DATE: 07/08/1994
ISSUE DATE:

SERIAL NUMBER: 08277438
PATENT NUMBER:

FILING DATE: 07/19/1994
ISSUE DATE:

SERIAL NUMBER: 08462430
PATENT NUMBER:

FILING DATE: 06/05/1995
ISSUE DATE:

SERIAL NUMBER: 09161741
PATENT NUMBER:

FILING DATE: 09/29/1998
ISSUE DATE:

SERIAL NUMBER: 09219835
PATENT NUMBER:

FILING DATE: 12/23/1998
ISSUE DATE:

SERIAL NUMBER: 09315979
PATENT NUMBER:

FILING DATE: 05/21/1999
ISSUE DATE:

SERIAL NUMBER: 09429624
PATENT NUMBER:

FILING DATE: 10/29/1999
ISSUE DATE:

SERIAL NUMBER: 08699579
PATENT NUMBER: 5867578

FILING DATE: 08/19/1996
ISSUE DATE: 02/02/1999

SERIAL NUMBER: 08802584
PATENT NUMBER: 5857022

FILING DATE: 02/19/1997
ISSUE DATE: 01/05/1999

SERIAL NUMBER: 08802603
PATENT NUMBER: 6009177

FILING DATE: 02/19/1997
ISSUE DATE: 12/28/1999

SERIAL NUMBER: 08802818
PATENT NUMBER: 5872849

FILING DATE: 02/19/1997
ISSUE DATE: 02/16/1999

SERIAL NUMBER: 08803024
PATENT NUMBER: 5850451

FILING DATE: 02/19/1997
ISSUE DATE: 12/15/1998

SERIAL NUMBER: 08803176
PATENT NUMBER: 5799086

FILING DATE: 02/19/1997
ISSUE DATE: 08/25/1998

SERIAL NUMBER: 08840227
PATENT NUMBER: 5841865

FILING DATE: 04/11/1997
ISSUE DATE: 11/24/1998

SERIAL NUMBER: 08869253
PATENT NUMBER: 5825880

FILING DATE: 06/04/1997
ISSUE DATE: 10/20/1998

SERIAL NUMBER: 08842080
PATENT NUMBER: 6035041

FILING DATE: 04/28/1997
ISSUE DATE: 03/07/2000

MARY BENTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

CONFIRMATORY ASSIGNMENT

THIS ASSIGNMENT, made this 5th day of April, 2000, by CertCo LLC, a Delaware limited liability company, (hereinafter referred to as "Assignor"), having its principal place of business at 55 Broad Street, 22nd Floor, New York, New York 10004;

WHEREAS said Assignor is the owner of all right, title, and interest in and to certain new and useful inventions set forth in the applications for Letters Patent and issued Letters Patents of the United States and Foreign Countries listed in Appendix A hereto; and

WHEREAS, CertCo, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, having its principal place of business at 55 Broad Street, 22nd Floor, New York, New York 10004, (hereinafter referred to as "Assignee") is desirous of acquiring the entire right, title, and interest in and to said inventions, said applications for Letters Patent and issued Letters Patents of the United States and Foreign Countries, and in and to any Letters Patent, United States or Foreign, to be obtained therefor and thereon; and

NOW, THEREFORE, CertCo LLC and CertCo, Inc. confirm, *nunc pro tunc* as of August 31, 1998, the following:

For good and sufficient consideration, the receipt of which is hereby acknowledged, said Assignor has sold, assigned, transferred and set over, and by these presents does sell, assign,

transfer and set over, unto said Assignee, its successors, legal representatives and assigns, the entire right, title, and interest in and to said inventions, said applications for Letters Patent and said issued Letters Patents of the United States and Foreign Countries set forth in Appendix A, and any and all direct or indirect divisions, continuations, and continuations-in-part of said applications, and any and all Letter Patents of the United States and all Foreign Countries which may be granted therefor and thereon, and reissues, reexaminations, and extensions of said Letters Patents, and all rights under the United States and the International Convention for the Protection of Industrial Property, including all rights of action and damages for present and past infringement relating thereto, the same to be held and enjoyed by the Assignee, for its own use and benefit and for the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which the Letters Patents may be granted and/or extend, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made;


AND for the same consideration, said Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to said Assignee, said Assignor is the sole and lawful owner of the entire right, title, and interest in and to said inventions, said applications for Letters Patents and said issued Letters Patents above-mentioned, and that the

same are unencumbered and that said Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth;

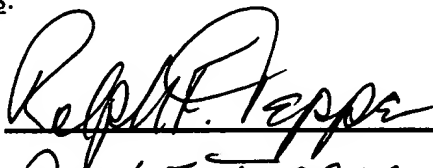
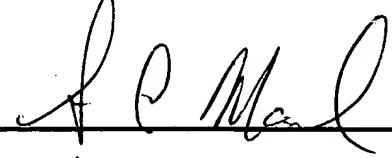
AND said Assignor acknowledges an obligation of assignment of this invention to said Assignee.

Executed this 5th day of April 2000, at New York, New York, USA.

CERTCO LLC, a Delaware Limited Liability Company

By: 
Name: Maureen Wilson
Title: Vice President - CertCo LLC

Witnesses:

| | | | |
|----------|--|----------|---|
| (1) | <u></u> | (2) | <u></u> |
| By: | | By: | |
| Name: | <u>Ralph F. Tepper</u> | Name: | <u>A.C. Maisel</u> |
| Address: | <u>100 Cambridge Park Drive</u> | Address: | <u>860 Arroyo Rd</u> |
| | <u>Cambridge, MA 02140</u> | | <u>Los Altos, CA 94024</u> |
| | <u></u> | | <u></u> |
| | <u></u> | | <u></u> |

On this 5th day of April, 2000, before me personally appeared Maureen Wilson, Vice-President - CertCo LLC, to me personally known, and known to me to be the person who signed the foregoing assignment, and acknowledged the signing of same as her free act and deed.

State of: New York

Sophia Petsas
Notary Public

County
of: Manhattan

My commission
expires on August 26, 2000

I, the undersigned, hereby certify that CertCo LLC of 55 Broad Street, 22nd Floor, New York, New York 10004, USA, in the foregoing assignment is a Limited Liability Company, duly organized and existing under the laws of Delaware, USA; and that Maureen Wilson is legally authorized to sign on behalf of and represent certain said Limited Liability Company.

Dated this 5 day of April, 2000.

Sophia Petsas

Notary Public

SOPHIA PETSAS

NOTARY PUBLIC, STATE OF NEW YORK

No. 41-4968006

Qualified in Queens County

Commission Expires June 11, 19
August 26, 2000

CERTCO, Inc., a Delaware Corporation

By:

June Yee Felix

Name: June Yee Felix

Title: Chief Executive Officer - CertCo, Inc.

Witnesses:

(1)

By:

Ralph F. Tepper

(2)

By:

A C Maise

Name:

RAUPH F. TEPPER

Name:

A C Maise

Address:

100 Cambridge Park Drive
Cambridge MA 02140

Address:

860 Arroyo Rd
Los Altos, CA 94024

On this 5th day of April, 2000, before me personally appeared June Yee Felix, Chief Executive Officer - CertCo, Inc., to me personally known, and known to me to be the person who signed the foregoing assignment, and acknowledged the signing of same as her free act and deed.

State of: New York

Sophia Petsas
Notary Public

County of: Manhattan

My commission expires on August 26, 2000

I, the undersigned, hereby certify that CertCo, Inc. of 55 Broad Street, 22nd Floor, New York, New York 10004, USA, in the foregoing assignment is a Corporation, duly organized and existing under the laws of Delaware, USA, and that June Yee Felix is legally authorized to sign on behalf of and represent certain said Corporation.

Dated this 5 day of April, 2000.

Sophia Petsas
Notary Public

SOPHIA PETSAS
NOTARY PUBLIC, STATE OF NEW YORK

No. 41-4968006

Qualified in Queens County

Commission Expires ~~June 11, 19~~

August 26, 2000

APPENDIX A

U.S. Pending Applications and Issued Patents:

| APPLICATION NO. | FILING DATE | PATENT NO. | TITLE |
|-----------------|-------------|------------|--|
| 08/272,203 | 07/08/1994 | N/A | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/277,438 | 07/19/1994 | N/A | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/462,430 | 06/05/1995 | N/A | MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM |
| 08/699,579 | 08/19/1996 | 5,867,578 | ADAPTIVE MULTI-STEP DIGITAL SIGNATURE SYSTEM AND METHOD OF OPERATION THEREOF |
| 08/802,584 | 02/19/1997 | 5,857,022 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/802,603 | 02/19/1997 | 6,009,177 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/802,818 | 02/19/1997 | 5,872,849 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/803,024 | 02/19/1997 | 5,850,451 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/803,176 | 02/19/1997 | 5,799,086 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/840,227 | 04/11/1997 | 5,841,865 | ENHANCED CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW FEATURE |
| 08/842,080 | 04/28/1997 | 6,035,041 | OPTIMAL-RESILIENCE, PROACTIVE, PUBLIC-KEY CRYPTOGRAPHIC SYSTEM AND METHOD |
| 08/869,253 | 06/04/1997 | 5,825,880 | MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM |
| 09/161,741 | 09/29/1998 | N/A | MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM |
| 09/219,835 | 12/23/1998 | N/A | METHOD OF CHANGING KEY FRAGMENTS IN A MULTI-STEP DIGITAL SIGNATURE SYSTEM |
| 09/315,979 | 05/21/1999 | N/A | ROBUST EFFICIENT DISTRIBUTED RSA-KEY GENERATION |
| 09/429,624 | 10/29/1999 | N/A | INCORPORATING SHARED RANDOMNESS INTO DISTRIBUTE CRYPTOGRAPHY |

N/A -- Not available at time of execution.

Foreign Patent Applications and Issued Patents:**Title: CRYPTOGRAPHIC SYSTEM AND METHOD WITH KEY ESCROW
FEATURE**

| COUNTRY | APPLICATION NO. | FILING DATE | PATENT NO. | ISSUE DATE |
|----------------|----------------------------|------------------------|-----------------------|-------------------|
| ARIPO | AP/P/96/00811 | 05/17/1996 | AP 626 | 01/16/1998 |
| Australia | 60842/96 | 08/01/1996 | 705473 | 05/20/1999 |
| Australia | 44619/99 | 08/20/1999 | N/A | N/A |
| Brazil | PI 9506414-1 | 07/13/1996 | N/A | N/A |
| Canada | 2,176,032 | 05/07/1996 | N/A | N/A |
| China | 95191205.4 | 07/13/1996 | N/A | N/A |
| Czech Republic | PV 1978-96 | 07/04/1996 | N/A | N/A |
| Czech Republic | PV 400-99 | 02/05/1999 | N/A | N/A |
| Czech Republic | PV 401-99 | 02/05/1999 | N/A | N/A |
| EPO | 95908511.9 | 05/15/1996 | N/A | N/A |
| Hungary | P96 01870 | 07/09/1996 | 216231 | 03/17/1999 |
| Japan | 519155/95 | 07/12/1996 | N/A | N/A |
| Korea (South) | 96-703134 | 06/13/1996 | N/A | N/A |
| Mexico | 962773 | 07/12/1996 | P96/248F | 09/04/1997 |
| New Zealand | 279622 | 05/06/1996 | 279622 | 08/18/1998 |
| New Zealand | 329891 | 03/03/1998 | N/A | N/A |
| OAPI | PV.60829 | 05/31/1996 | 10456 | 05/19/1995 |
| Poland | P-315574 | 07/11/1996 | 176 458 | 03/12/1998 |
| Russia | 96121407 | 07/12/1996 | N/A | N/A |
| Ukraine | 96072822 | 07/12/1996 | N/A | N/A |
| Vietnam | S19960030 | 07/13/1996 | N/A | N/A |
| PCT | PCT/US95/00531 | 01/13/1995 | N/A | N/A |

N/A -- Not available at time of execution.

Title: MULTI-STEP DIGITAL SIGNATURE METHOD AND SYSTEM

| COUNTRY | APPLICATION NO. | FILING DATE | PATENT NO. | ISSUE DATE |
|-----------------------------------|------------------------|--------------------|-------------------|-------------------|
| Argentina | 336.816 | 06/04/1996 | N/A | N/A |
| Australia | 55521/96 | 04/19/1996 | N/A | N/A |
| Bangladesh | 111/98 | 07/16/1998 | N/A | N/A |
| Brazil | PI 9608416-2 | 12/05/1997 | N/A | N/A |
| Canada | 2,223,305 | 12/05/1997 | N/A | N/A |
| Chile | 990-96 | 06/04/1996 | N/A | N/A |
| China | 96196055.8 | 12/05/1997 | N/A | N/A |
| Colombia | 96029148 | 06/04/1996 | N/A | N/A |
| Egypt | 495/96 | 06/05/1996 | N/A | N/A |
| EPO | 96912843.8 | 01/05/1998 | N/A | N/A |
| Hong Kong | 99100927.0 | 03/08/1999 | N/A | N/A |
| India | 963/MAS/96 | 06/04/1996 | N/A | N/A |
| Indonesia | 961305 | 05/28/1996 | N/A | N/A |
| Israel | 118,363 | 05/22/1996 | N/A | N/A |
| Japan | 500473/97 | 12/05/1997 | N/A | N/A |
| Korea (South) | 97-708932 | 12/05/1997 | N/A | N/A |
| Malaysia | PI 9602171 | 06/04/1996 | N/A | N/A |
| Mexico | 979760 | 12/05/1997 | N/A | N/A |
| New Zealand | 306846 | 12/23/1997 | N/A | N/A |
| New Zealand | 500372 | 10/15/1999 | N/A | N/A |
| Pakistan | 418/96 | 07/02/1996 | 13 53 64 | 6/2/98 |
| Peru | 000410 | 06/04/1996 | N/A | N/A |
| Philippines | 53246 | 05/31/1996 | N/A | N/A |
| Singapore | 9705339-1 | 12/05/1997 | N/A | N/A |
| South Africa | 96/3635 | 05/08/1996 | 96/3635 | 01/29/1997 |
| Taiwan | 85105565 | 05/10/1996 | 87843 | 06/01/1997 |
| Ukraine | 971263021M | 12/25/1997 | N/A | N/A |
| United Kingdom | 9610291.8 | 05/16/1996 | 2,301,919 | 12/18/1996 |
| United Kingdom | 9918950.8 | 08/11/1999 | 2,237,145 | 11/10/1999 |
| Venezuela | 96-000950 | 06/04/1996 | N/A | N/A |
| Vietnam | S19980015 | 01/05/1998 | N/A | N/A |
| PCT (designating all except U.S.) | PCT/US96/05317 | 04/19/1996 | N/A | N/A |

N/A -- Not available at time of execution.

Title: ROBUST EFFICIENT DISTRIBUTED RSA-KEY GENERATION

| COUNTRY | APPLICATION NO. | FILING DATE |
|--------------------------------------|------------------------|--------------------|
| PCT (designating all including U.S.) | PCT/US99/11203 | 05/21/1999 |

Title: OPTIMAL-RESILIENCE, PROACTIVE, PUBLIC-KEY CRYPTOGRAPHIC SYSTEM AND METHOD

| COUNTRY | APPLICATION NO. | FILING DATE |
|--------------------------------------|------------------------|--------------------|
| Australia | 74684/98 | 11/25/1999 |
| Brazil | PI9809312-6 | 10/27/1999 |
| Canada | 2,286,732 | 10/15/1999 |
| EPO | 98922052.0 | 11/29/1999 |
| Japan | 547182/98 | 10/28/1999 |
| PCT (designating all including U.S.) | PCT/US98/08299 | 05/24/1998 |

Title: INCORPORATING SHARED RANDOMNESS INTO DISTRIBUTED CRYPTOGRAPHY

| COUNTRY | APPLICATION NO. | FILING DATE |
|--------------------------------------|------------------------|--------------------|
| PCT (designating all including U.S.) | PCT/US99/25293 | 10/29/1999 |



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

MARCH 12, 1996

PTAS

CUSHMAN DARBY & CUSHMAN, L.L.P.
STUART T. F. HUANG
1100 NEW YORK AVENUE, N.W.
NINTH FLOOR, EAST TOWER
WASHINGTON, D.C. 20005-3918



jc997 U.S. PTO
09/816684
03/26/01

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RECORDATION DATE: 09/19/1995

REEL/FRAME: 7692/0986
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

SUDIA, FRANK W.

DOC DATE: 07/14/1995

ASSIGNOR:

FREUND, PETER C.

DOC DATE: 07/17/1995

ASSIGNOR:

HUANG, STUART T. F.

DOC DATE: 07/14/1995

ASSIGNEE:

BANKERS TRUST COMPANY
280 PARK AVENUE
NEW YORK, NEW YORK 10017

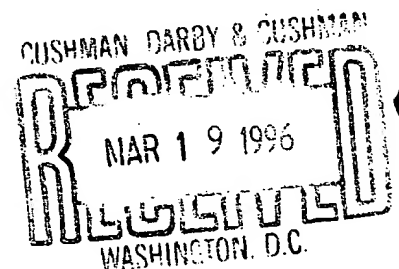
SERIAL NUMBER: 08462430
PATENT NUMBER:

FILING DATE: 06/05/1995
ISSUE DATE:

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MAR 27 1996

Step toe & Johnson LLP



7692/0986 PAGE 2

JERYL MCDOWELL, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS



07-14-2000



101404274

U.S. Department of Commerce
Patent and Trademark Office
PATENT

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Reel # Frame #

Conveyance Type

☐ Assignment ☐ Security Agreement

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U.S. Government
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☐ Departmental File ☐ Secret File

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Execution Date
Month Day Year
 04 05 2000

Name (line 1) CertCo LLC

Name (line 2) a limited liability company of Delaware

Second Party

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1) CertCo, Inc.

Name (line 2) a corporation of Delaware

Address (line 1) 55 Broad Street

Address (line 2) 22nd Floor

Address (line 3) New York NY 10004
City State/Country Zip Code

☐ If document to be recorded
is an assignment and the
receiving party is not
domiciled in the United
States, an appointment
of a domestic
representative is attached.
(Designation must be a
separate document from
Assignment)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name National Registered Agents, Inc.

Address (line 1) 9 East Lockerman Street

Address (line 2) Dover, Delaware 19901

Address (line 3)

Address (line 4)

07/12/2000 DMUYEN 00000228 08272203

01 FC:581

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